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(54) Cosmetic agent comprising a pH colour indicator

(57) A cosmetic agent for treating the skin comprises an acidimetric colour indicator with a transition range from pH 1.2 to 13.0 in addition to customary active cosmetic substances, moisturisers and/or cosmetic adjuvants. Preparations are applied one after the other onto the skin; the mixture of preparations is removed when the indicator changes colour.

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## SPECIFICATION

## Cosmetic agent and method for treating the skin with a cosmetic agent

5 This invention relates to cosmetic agents and methods of skin treatment.

As a consequence of its acidic coating the skin has its own optimal pH value of about 5 to 6. It is a known fact that successful cosmetic treatment of the skin and its structures is dependent mainly on the active hydrogen ion concentration (pH value) of the cosmetic agents being used. Use is not infrequently made of preparations which are strongly alkaline or strongly acidic, whose pH values are accordingly far removed 10 from the optimal physiological pH value of the skin. At the conclusion of a cosmetic treatment process the skin's acidic coating should always be restored (regenerated). To effect this pH regeneration, hitherto the specifically effective preparation was generally washed off and then, if the preparation was strongly alkaline 15 as in the case of a depilation cream, an acidic cream or tonic was applied to the skin.

In order to limit the necessary effect of strongly alkaline or strongly acidic agents on the skin to the 15 required extent, and to restore the natural physiological conditions of the skin as soon as possible, it would be extremely useful if the course of a cosmetic treatment process could easily be observed, checked and regulated. This applies in particular for the conclusion of the course of treatment, namely regeneration of the pH in order to restore the physiological pH value of the skin.

We have also sought to provide a cosmetic agent where as large a proportion as possible of the active 20 substances and skin-care components contained in the cosmetic agent is taken up into or deposited on the skin in a treatment time which is as short as possible and which can be exactly measured.

The invention provides a cosmetic process for treating the skin and its structures, which comprises applying a cosmetic agent that contains one or more acidimetric colour indicators and that allows the course 25 of treatment to be regulated by means of the discernible colour change. According to the invention, the pH of the skin is regenerated following the application of strongly alkaline preparations, especially cold wave agents, depilatories or skin-softening masks, by removing the strongly alkaline preparations with cosmetic 30 agents which contain acidimetric colour indicators with a transition range from pH 1.2 to 13.0; the treatment is concluded when the colour changes.

A similar method is employed for the pH regeneration of the skin following the application of strongly 30 acidic preparations, especially bleaching agents for hair and skin. In this case too, according to the invention, the strongly acidic preparations are removed with cosmetic agents that have acidimetric colour indicators with a transition range from pH 1.2 to 13.0, the treatment being concluded when the colour changes.

The invention also provides an acidic or alkaline-adjusted pH regeneration agent for application to the skin and containing acidimetric colour indicators with a transition range between pH 1.2 and 13.0, in particular pH 35 2 to 9 and preferably pH 4 to 8.

Through the use of the cosmetic agents according to the invention a simple, visible check on the regeneration of the physiological pH value of the skin is ensured which has hitherto not been possible with the use of cosmetic agents.

The easy and safe check on the pH value during a cosmetic treatment with the help of pH indicators makes 40 it possible to develop cosmetic agents from two or more preparations with different pH values and independent of each other as regards their use, of which at least one contains an acidimetric colour indicator.

These cosmetic agents are also subject of the invention. With their help, a guaranteed effective treatment with active substances aimed at a particular result is possible. In this way, the active substances can be 45 controllably applied in the highly active nascent state. In addition, it is possible to obtain a hitherto unknown concentration of active substances in the skin. The "depot effect" which can thus be achieved signifies a considerable advance in cosmetic treatments. A cosmetic agent of this sort, according to the invention,

consists for example of a preparation A containing the active substances and having a pH value which deviates strongly from the pH value of the skin, and a preparation B containing a pH regeneration agent for 50 the skin; at least one of these preparations contains the acidimetric colour indicator with a transition range from pH 1.2 to 13.0, in particular pH 2 to 9 and preferably pH 4 to 8. Preparation A can be strongly alkaline with a pH of about 12 to 8, especially 11 to 8, or strongly acidic with a pH of about 1.5 to 4, especially 2 to 3, according to the desired method of cosmetic treatment.

Cosmetic agents according to the invention can also consist of a strongly alkaline preparation A containing an acidimetric colour indicator, a strongly acidic preparation B and a preparation C containing a pH 55 regeneration agent of pH about 5.0 to 6.0 for the skin and an acidimetric colour indicator with a transition range from pH 1.2 to 13.0, in particular pH 2 to 9 and preferably pH 4 to 8. As the pH regeneration agent a buffer system is preferably used, for example, acetic acid/sodium acetate, boric acid/sodium borate, phosphoric acid/sodium phosphate or sodium bicarbonate/sodium carbonate.

The advantageous effects of such two-phase or three-phase preparations are elucidated by means of the 60 examples. Treating the skin with an alkaline preparation A, causes swelling of the uppermost dermal layer and first makes possible, or at least considerably improves, the penetration into the skin of special active substances such as, for example, allantoin, tocopherol, lecithin, moisturising agents, collagen or uracil.

Following the necessary duration of action, the acidic preparation B is applied and mixed carefully with preparation A on the skin by massaging. The acidic preparation hardens the swollen upper dermal layer and 65 the skin is practically sealed again once the active substances have penetrated. The process of pH

regeneration, and thus the end of the treatment, has been reached when the colour indicator changes colour. The preparations are then removed from the skin by means of damp compresses.

A two-phase treatment with a cosmetic agent where preparation A is acidic is recommendable, for example, for an optimal active substance treatment with collagen. Preparation A needs to be acidic on account of the solubility of the collagen. When regenerating the pH with preparation B the collagen precipitates and remains in intensive contact with the skin, even when the masks are removed at the end of the treatment with damp compresses.

An "active substance depot" can be obtained in the skin by means of the action of several preparations with different pH values, as can be shown using the example of a uracil-depot mask treatment. Uracil is hardly water-soluble in the acidic pH range, slightly water-soluble in the pH range of the skin and easily water-soluble in the alkaline range. This is explained by the fact that uracil is a dibasic acid with different acid constants. In order to obtain an optimal uracil depot in the skin, the treatment is carried out with three preparations which are applied one after the other. The skin is softened by the alkaline preparation A and allows the active substances to penetrate. At this pH value of e.g. 10 the uracil is easily soluble and diffuses well into the skin. For this purpose preparation A is applied generously to the parts of the skin to be treated, distributed well by massaging and left there for 2 to 8, especially 2 to 5 minutes. Following the duration of action, the preparation B, for example, an acidic face tonic with pH 2 to 3 is applied and mixed intensively, by massage, with preparation A on the skin until the colour changes. In this way the uracil is transformed into its insoluble form and remains to a large extent in the skin when the uracil mask is removed with the acidic face tonic. To complete the treatment, a pH regeneration cream (preparation C) is then applied until its colour change shows that the skin's optimal pH value of about 5.5 has been reached.

The acidimetric colour indicators suitable for purposes of the invention are in fact known. They must, however, for the purposes of the invention, be sufficiently stable in their application with respect to the active substances and other components of the cosmetic agent, reliable, and furthermore must be tolerated by the skin. The indicators which according to present-day knowledge can be considered for use in cosmetic agents are listed in the following table together with the pH range for their colour reactions and their special colour changes.

	No. Indicator	pH Range	Colour Change	
30	1. Tropeolin 00 (C.I. 13080)	1.2 - 3.2	violet red - yellow orange	30
	2. Benzyl orange	1.9 - 3.3	red - yellow	
35	3. Benzopurpurin 4B (C.I. 23560)	2.3 - 4.4	blue violet - red	35
	4. Congo red (C.I. 22120)	3.0 - 5.2	blue - red	
40	5. Brom-phenol blue	3.0 - 4.6	yellow - blue violet	40
	6. Bromchlorphenol blue	3.0 - 4.6	yellow - violet	
45	7. Methyl orange (C.I. 13025)	3.0 - 4.4 3.5 - 5.7	red - yellow orange violet pink - brownish yellow	45
	8. $\alpha$ -Naphthyl red	3.7 - 5.0	purple - yellow orange	
50	9. Bromcresol green	3.8 - 5.4	yellow - blue	50
	10. Methyl red (C.I. 13020)	4.4 - 6.2	red - yellow	
55	11. Ethyl red	4.4 - 6.2	red - yellow	55
	12. Chlorophenol red	4.6 - 7.0	yellow - red violet	
60	13. Carminic acid (C.I. 75470)	4.8 - 6.2	yellow - red violet	60
	14. Alizarin red S (C.I. 58005)	5.0 - 6.6	yellow - violet red	
65				65

3	No. Indicator	pH Range	Colour Change	
	15. Litmus	5.0 - 8.0	red - blue violet	
5	16. Bromcresol purple	5.2 - 6.8	yellow - violet	5
	17. Bromphenol red	5.4 - 7.0	yellow - purple	
10	18. Alizarin (C.I. 58000)	5.8 - 7.2	yellow - red violet	10
	19. Bromothymol blue	6.0 - 7.5	yellow - blue	
	20. Bromxylenol blue	6.0 - 7.6	yellow - blue	
15	21. Brasilin (C.I. 75280)	6.0 - 7.7	greenish yellow - dark violet	15
20	22. Nitrazine yellow (C.I. 14890)	6.0 - 7.0	yellow - blue violet	20
	23. Hematoxylin (C.I. 75290)	6.0 - 11.0	yellow - violet	
25	24. Phenol red	6.4 - 8.2	yellow - red	25
	25. Neutral red (C.I. 50040)	6.8 - 8.0	red - yellow	
30	26. Cresol red	0.2 - 1.8 7.0 - 8.8	pink red - yellow yellow - violet red	30
	27. <i>m</i> -Cresol purple	1.2 - 2.8 7.4 - 9.0	red - yellow yellow - violet	
35	28. Brilliant yellow (C.I. 24890)	7.4 - 8.6	yellow - brown red	35
	29. $\alpha$ -Naphtholorange	7.6 - 8.9	yellow - pink	
40	30. $\alpha$ -Naphtholphthalein	7.8 - 9.0	pale yellow - blue	40
	31. Thymol blue	1.2 - 2.8 8.0 - 9.6	red - yellow yellow - blue	
45	32. Xylenol blue	1.2 - 2.8 8.0 - 9.6	red - yellow yellow - blue	45
	33. $\sigma$ -Cresolphthalein	8.2 - 9.8	colourless - red violet	
50	34. Phenolphthalein	8.4 - 10.0	colourless - purple	50
	35. $\alpha$ -Naphtholbenzein	8.8 - 11.0	colourless - blue green	
55	36. Thymolphthalein	9.3 - 10.5	colourless - blue	55
	37. Water blue (C.I. 42755)	9.4 - 14.0	Blue-(red) - colourless	
60	38. Alizarin orange GG (C.I. 14025)	10.0 - 12.0	pale yellow - orange yellow	60
65				65

	No. Indicator	pH Range	Colour Change	
5	39. Alizarin orange R (C.I. 14030)	10.0 - 12.0	pale yellow - orange red	5
10	40. Nile blue A	10.2 - 13.0	blue - violet red	
	41. $\beta$ -Naphthol violet	10.6 - 12.0	orange yellow - violet	10
	42. Gold yellow (C.I. 14270)	11.1 - 12.7	yellow - brown red	

15 Of the above acidimetric colour indicators, those which are differently coloured in different pH ranges are particularly useful for cosmetic treatment. These are, e.g. methyl orange, (No. 7), cresol red (No. 26), *m*-cresol purple, (No. 27), thymol blue, (No. 31) and xylanol blue (No. 32). 15

The indicators can be used in special mixtures such that pH changes can be observed by means of a continuous, manifoldly graduated colour transition.

20 The invention is illustrated by the following Examples. 20

*Example 1*

Face tonic for pH regeneration of the skin following application of a depilation cream.

25	1-Propyl alcohol	10.0 parts by weight	25
	Perfume	0.1 "	
	Allantoin	0.2 "	
	Bromothymol blue	0.005 "	
	Eumulgin 0 10*	0.2 "	
30	Phosphate buffer solution according to Sorensen** pH 5.5	made up to 100.0 "	30

\* Emulsifying agent based on fatty alcohol or alkyl aryl polyglycol ethers

\*\* Potassium biphosphate/disodium biphosphate solution

35 The preparation is yellow. A compress or wad of cotton wool is dampened with the tonic and the skin is cleaned of depilation cream. For as long as the alkaline depilation cream is not completely neutralised, the compress or wad of cotton wool is turned to blue. A colour change from yellow to blue is no longer observed when the depilation cream has been neutralised, i.e. when the physiological pH value of the skin has been 40 reached. 40

*Example 2*

Face tonic for pH regeneration of the skin following application of a skin bleaching agent.

In order to regenerate the pH a similar face tonic is used as in Example 1, except that the tonic of Example 2 45 contains the indicator bromcresol green. The face tonic is thus green. For as long as the acidic face mask is not completely neutralised and the pH value of the skin regenerated, the cotton wool or compress is coloured yellow. 45

*Example 3*

50 pH-Regeneration emulsion for the skin following treatment with an acidic face mask. 50

	Di-ethanolamino cetyl phosphate (Amphisol)	3.0 parts by weight	
55	Stearic acid	3.0 "	
	Isopropyl myristate	5.0 "	
	Paraffin oil	5.0 "	
	Phosphate buffer solution according to Sorensen pH 5.5	9.5 "	
60	Bromcresol green	0.01 "	
	Perfume	0.2 "	60
	Distilled water made up to	100.0 "	

This pH regeneration emulsion is blue and turns yellow for as long as the physiological pH value of the skin has not yet been reached. Application of the emulsion is analogous to that of the tonic according to the 65 preceding Examples. 65

## Example 4

Two-phase regeneration mask			
	Preparation A:	Ointment base*	10.50 parts by weight
5		Squalane	6.00 "
		Coconut oil	6.00 "
		Distilled water	55.45 "
		4-Hydroxybenzoic ester	0.35 "
10		1,2-propanediol	4.00 "
	Complex of moisturising factors		
	(Hygroplex)**	4.00	"
15	Litmus	0.20	"
	Potassium carbonate	0.50	"
	Allantoin	2.00	"
20	Tocopherol acetate	0.60	"
	Powder mixture***	10.00	"
	Perfume	0.40	"
	Preparation B:		
25	Bentonite	2.60	"
	Glycerin	12.00	"
	Citric acid	2.50	"
	Distilled water	83.30	"
	4-Hydroxybenzoic methyl and/or propyl ester	0.30	"
30	Sodium benzoate	0.20	"
	Emulgin 0 10	2.00	"
	Perfume	0.10	"
35	*	Vaseline (Trade Mark), paraffin - polyethylene, triglycerides, carbohydrates, lipogel, bentonite, cellulose derivates and/or polyethylene glycol.	35
	**	Mono- and disaccharides, amino acids, urea and weak hyperremisation substances.	
	***	Talcum, corn starch, titanium dioxide and/or wheat starch.	
40	The pH value of preparation A is about 10. Due to its litmus content it is blue, and is applied generously onto the parts of the skin to be treated, particularly face, décolleté etc. This mask is left on the skin for about 5 minutes. The colourless, acidic preparation B (pH value 2.8) is subsequently applied to the parts of the skin to be treated and mixed carefully with preparation A on the skin by means of massage. The treatment is concluded when the acidic coating of the skin has been restored, i.e. when the blue litmus colour of the	40	
45	combined masks has turned to red. The preparations are then removed from the skin with damp compresses.	45	

*Example 5*

## Two-phase collagen mask

	Preparation A:	Aerosil (Trade Mark)	3.5 parts by weight	
5		Na-alginate	0.5 "	5
		Titanium dioxide	2.0 "	
10		Acidic solution of collagen (Collapur)	5.0 "	10
		Methyl red	0.02 "	
15		4-Hydroxybenzoic methyl ester	0.18 "	
		Distilled water made up to	100.0 "	15
20	Preparation B:	Phosphate buffer according to Sörensen pH 6.5 made up to	100.0 "	20
		Na-caraginate (Viscarine)	2.0 "	
25		4-Hydroxybenzoic methyl ester	0.2 "	

Preparation A is acidic and is coloured red by the indicator methyl red. It is applied generously to the parts of the skin to be treated and distributed for about 3 minutes by massaging lightly. The colourless preparation B is subsequently applied on top of the red preparation A and the two masks mixed thoroughly on the skin until the red colour has turned completely to yellow. At the isoelectric point (pH 5 to 6) the collagen precipitates, the pH having been regenerated, and remains in contact with the skin even after the masks have been removed by treatment with damp compresses.

*Example 6*

## Uracil-depot mask treatment

35	Preparation A	(Alkaline uracil mask):		35
		K-carbonate	0.2 parts by weight	
40		Uracil	0.2 "	
		1,2-propanediol	4.0 "	40
		Hydroxybenzoic ester	0.2 "	
45		Bentonite	3.0 "	
		Bromcresol green	0.02 "	
		Distilled water made up to	100.0 "	45
50	Preparation B	(Acidic face tonic):		
		Na-alginate	0.2 parts by weight	
		Citric acid	1.0 "	
		1,2-propanediol	5.0 "	50
		Hydroxybenzoic ester	0.2 "	
		Distilled water made up to	100.0 "	
55	Preparation C	(pH-Regeneration uracil cream): Emulsion according to Example 3 with 0.1 parts by weight of uracil.		

The blue preparation A, which contains the dissolved uracil, is applied generously to the parts of the skin to be treated, distributed well by massaging and left on for a further 3 to 5 minutes. After the duration of action the colourless, acidic face tonic (preparation B) with pH value 2.8 is applied and mixed intensively with mask A by massaging until the blue colour has turned completely to yellow. This causes the uracil to precipitate. Finally a pH regeneration cream C which contains uracil is applied, the uracil content of which increases the uracil depot which has already been worked into the skin and which is only slightly soluble in

the pH range of the skin. The blue cream C, applied with a ball of cotton wool, is coloured yellow for as long as the optimal skin pH value of about 5.5 has not been reached. The preparation C may contain a further indicator, e.g. bromothymol blue, or may be used without an indicator.

5 Example 7  
Two-phase regeneration mask

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Preparation A:				
10	Amorphous silicic acid (Aerosil)	9.000 parts by weight		10
	Corn starch	2.000	"	
	Allantoin	2.000	"	
15	1,2 Dipropyl alcohol	6.000	"	
	Panthenol	1.200	"	15
	4-Hydroxy- benzoic methyl ester	0.0002	"	
20	4-Hydroxy- benzoic propyl ester	0.00006	"	20
	Alizarin	0.00002	"	
	Triethanolamine	2.000	"	
25	Extract of wheatgerm (Epigran)	4.000	"	25
	Emulgin O 10	0.0001	"	
	Tocopherol acetate	0.0006	"	
30	Distilled H <sub>2</sub> O made up to	100.000	"	30
Preparation B:				
35	(Teginacid)* (Emulgade F Spezial)**	5.000	"	
	Isopropyl- myristate	4.000	"	35
	Cetyl stearyl alcohol mixture	5.000	"	
40	Mixture of triglycerides (Miglyol 812)	1.000	"	
	1,2-propane- diol	5.000	"	40
45	Moisturising agent (Hygroplex)***	4.000	"	
	4-Hydroxy- benzoic methyl ester	4.000	"	45
50	4-Hydroxy- benzoic propyl ester	0.0002	"	
	Na-benzoate	0.0001	"	50
	Lactic acid	0.0002	"	
55	Distilled H <sub>2</sub> O made up to	2.000	"	
		100.000	"	55

\* o/w emulsifying agent of glycerin mono-distearates and polyglycol fatty alcohol ether

60 \*\* Emulsifying agent based on cetyl stearyl alcohol with addition of cetyl stearyl sulphate - Na or  
non-ionic polyglycol ether

\*\*\* Mono- and disaccharides, amino acids, urea and weak hyperemisation substances.

The pH value of preparation A, which is blue-violet in colour, is about 8.2. It is applied to the skin, where it  
65 is allowed to take effect for about 5 minutes. During this time the skin swells, which results in better or

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increased uptake of the active substances. Then the colourless, acidic preparation B with pH 2.6 is applied and mixed with the preparation A already on the skin until the colour turns to yellow. The mixture of preparations is then removed from the skin.

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## 5 CLAIMS

1. A cosmetic agent for treating the skin, comprising at least one customary active cosmetic substance, at least one moisturiser and/or at least one cosmetic adjuvant, and containing at least one acidimetric colour indicator having a transition range from pH 1.2 to 13.0. 10

10 2. A cosmetic agent according to claim 1, comprising a preparation which contains at least one active skin substance and a strongly acidic or strongly alkaline agent, and at least one additional preparation which contains an agent for regenerating the pH value of the skin to the physiological pH value, the individual preparations being intended for application to the skin one after the other and being mixed with one another on the skin, and at least one of the preparations containing a colour indicator with a transition range from pH 1.2 to 13.0. 15

15 3. A cosmetic agent according to claim 1, comprising a strongly alkaline preparation A which contains at least one active skin substance, at least one additional customary cream component and at least one acidimetric colour indicator with a transition range from pH 1.2 to 13.0, a second, strongly acidic preparation B to precipitate the active skin substance or substances, and a preparation C with a pH-regenerating agent for the skin and optionally an acidimetric colour indicator with a transition range from pH 1.2 to 13.0. 20

20 4. A cosmetic agent according to claim 1, comprising a preparation A with the following components:

	Amorphous silicic acid	9.0 parts by weight	
	Corn starch	2.0 "	
25	1,2-propanediol	6.0 "	25
	4-Hydroxybenzoic methyl and propyl ester	0.0003 "	
	Panthenol	1.2 "	
	Alizarin	0.00002 "	
30	Allantoin	2.0 "	30
	Tri-ethanolamine	2.0 "	
	Emulsifying agent	0.0001 "	
	Extract of wheat germ	4.0 "	
	Tocopherol acetate	0.0006 "	
35	Distilled water made up to	100.0 "	35

and a preparation B with the following components:

	o/w Emulsifying agent	10.0 parts by weight	
40	Isopropyl myristate	5.0 "	40
	Mixture of triglycerides	5.0 "	
	1,2-propanediol	4.0 "	
	Moisturising agent	4.0 "	
	Lactic acid	2.0 "	
45	4-Hydroxybenzoic methyl and propyl ester	0.0003 "	45
	Sodium benzoate	0.0002 "	
	Distilled water made up to	100.0 "	

50 5. A cosmetic agent according to claim 1, substantially as hereinbefore described with reference to any of the Examples. 50

55 6. A method of treating the skin with a cosmetic agent according to any one of claims 1 to 5, which comprises first applying a strongly acidic or strongly alkaline preparation, containing at least one active skin substance and at least one additional customary cream component, to the skin and allowing it to take effect; then applying at least a second preparation, containing an agent for regenerating the pH value of the skin to the physiological pH value (pH = about 5-6); mixing the second preparation with the preparation initially applied, at least one of the preparations applied containing at least one colour indicator with a transition range from pH 1.2 to 13.0 and the preparations being mixed until the colour of the mixture changes; and then removing the mixture of preparations from the skin. 55

60 7. A method of treating the skin with a cosmetic agent, which comprises first applying a strongly acidic or strongly alkaline preparation, containing at least one active skin substance, at least one additional customary cream component and at least one colour indicator with a transition range from pH 1.2 to 13.0, to the skin and allowing it to take effect; then applying a second preparation, containing an agent for neutralising the pH value of the first preparation; mixing the second preparation with the preparation which was initially applied until the colour of the mixture changes; then applying a third preparation, containing an agent for 60

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regenerating the pH value of the skin to the physiological pH value, at least one colour indicator with a transition range from pH 1.2 to 13.0 and optionally at least one other active skin substance; mixing the third preparation with the mixed preparation until the colour changes; and then removing the mixture of preparations from the skin.

5 8. A method according to claim 6 or 7, wherein the acidimetric colour indicator has a transition range from about pH 2 to 9. 5

9. A method according to claim 8, wherein the transition range is from about pH 4 to 8.

10 10. A method according to any one of claims 6 to 9, wherein at least one of the preparations contains at least one skin active substance selected from allantoin, vitamin B, E or F, natural vitamin oils, lecithin, uracil and collagen. 10

11. A method according to any one of claims 6 to 10, wherein the strongly alkaline preparation has a pH value of about 12 to 8, and the strongly acidic preparation has a pH value of about 1.5 to 4.

12. A method according to claim 11, wherein the strongly alkaline preparation has a pH of 11 to 8 and the strongly acidic preparation has a pH of 2 to 3. 15

15 13. A method according to any one of claims 6 to 12, wherein the agent for regenerating the pH value of the skin contains a buffer substance with a pH of about 5.0 to 6.0 15

14. A method according to claim 13, wherein the buffer substance consists of acetic acid/sodium acetate, boric acid/sodium borate, phosphoric acid/sodium phosphate or Na-bicarbonate/Na-carbonate.

15 15. A method according to any one of claims 6 to 14, wherein the colour indicator is at least one of the following: 20

No. Indicator

25	1. Tropeolin 00 (C.I. 13080)	25
	2. Benzyl orange	
	3. Benzopurpurin 4B (C.I. 23560)	
30	4. Congo red (C.I. 22120)	30
	5. Brom-phenol blue	
	6. Bromchlorphenol blue	
	7. Methyl orange (C.I. 13025)	
35	8. $\alpha$ -Naphthyl red	35
	9. Bromcresol green	
	10. Methyl red (C.I. 13020)	
	11. Ethyl red	
40	12. Chlorophenol red	40
	13. Carminic acid (C.I. 75470)	
	14. Alizarin red S (C.I. 58005)	
45	15. Litmus	45
	16. Bromcresol purple	
	17. Bromphenol red	
	18. Alizarin (C.I. 58000)	
50	19. Bromothymol blue	50
	20. Bromxylenol blue	
	21. Brasiliin (C.I. 75280)	
	22. Nitrazine yellow (C.I. 14890)	
55	23. Hematoxylin (C.I. 75290)	55
	24. Phenol red	
	25. Neutral red (C.I. 50040)	
60	26. Cresol red	60
	27. <i>m</i> -Cresol purple	
	28. Brilliant yellow (C.I. 24890)	
65	29. $\alpha$ -Naphtholorange	65

30.	α-Naphtholphthalein	
31.	Thymol blue	
32.	Xylenol blue	
33.	o-Cresolphthalein	
5	34. Phenolphthalein	5
	35. α-Naphtholbenzein	
	36. Thymolphthalein	
	37. Water blue (C.I. 42755)	
10	38. Alizarin orange GG	10
	(C.I. 14025)	
	39. Alizarin orange R	
	(C.I. 14030)	
	40. Nile blue A	
15	41. β-Naphthol violet	15
	42. Gold yellow (C.I. 14270)	

16. A method of treating the skin with a cosmetic agent, substantially as hereinbefore described with  
20 reference to any of the Examples.

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